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(54) Feeder

(57) To regulate the amount of feed distributed from cylindrical distributor 4 of a feeder plate 1 is mounted on distributor 4 via a frame 2 and sleeve 3. Diametrically opposed teeth 8 inside sleeve 3 may be selectively engaged with protrusions 6 on the exterior of distributor 4 to alter the distance between the plate 1 and distributor 4.

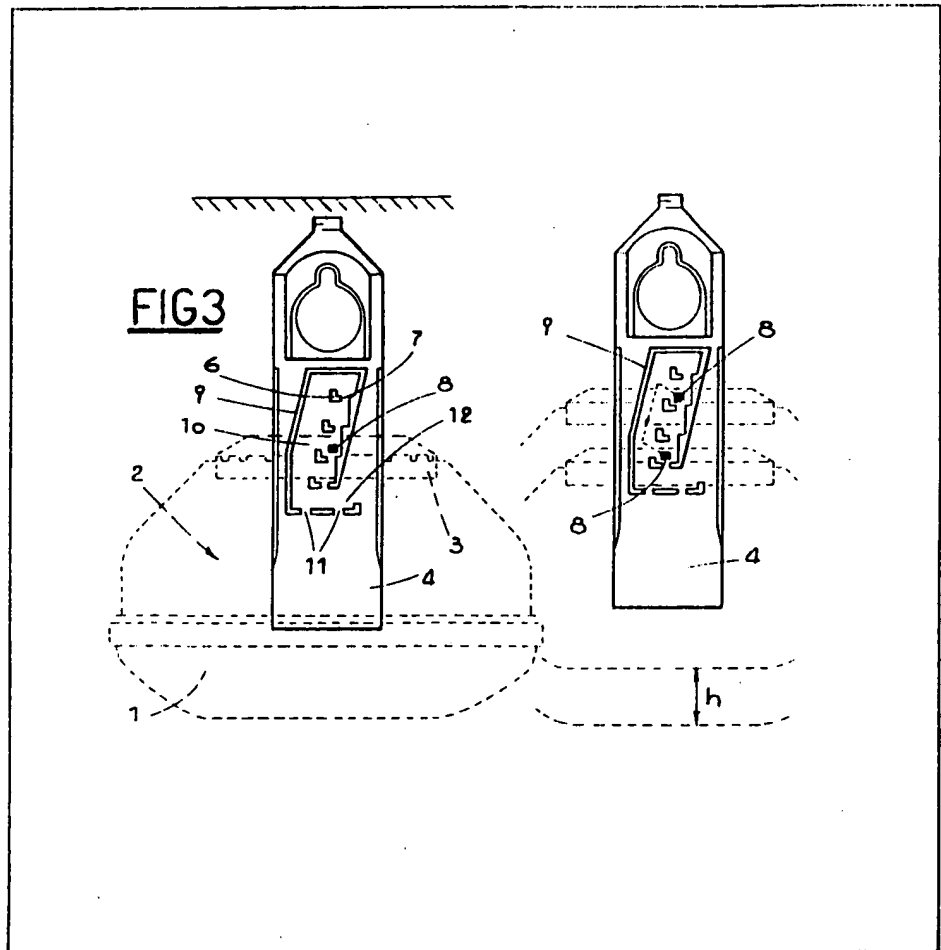


FIG1

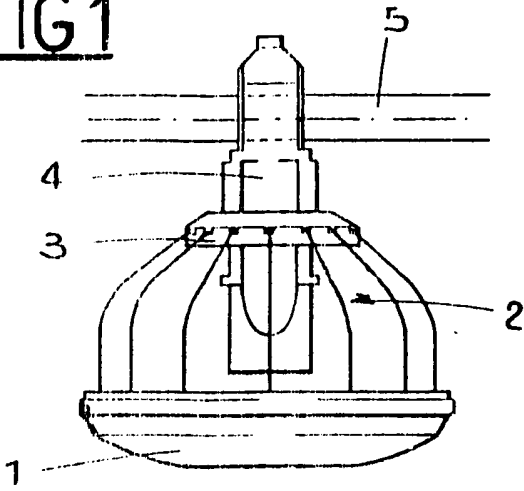


FIG2

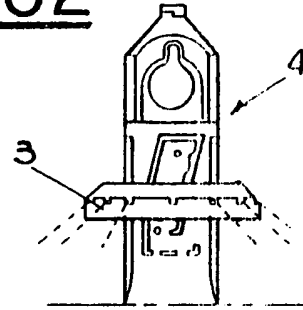


FIG4

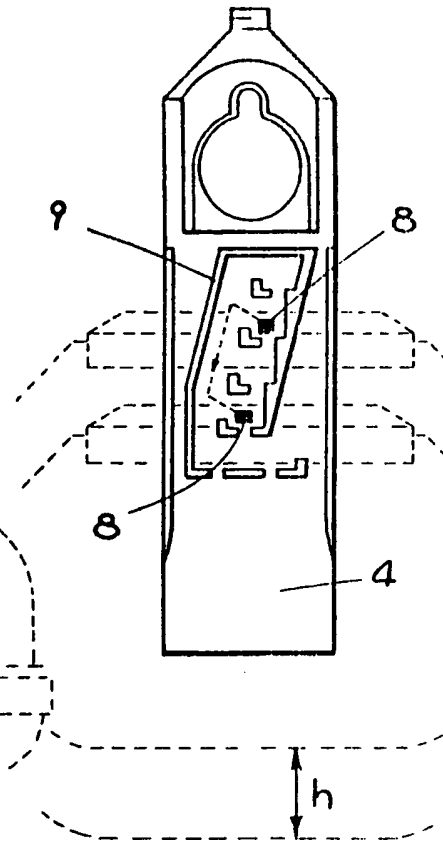


FIG3

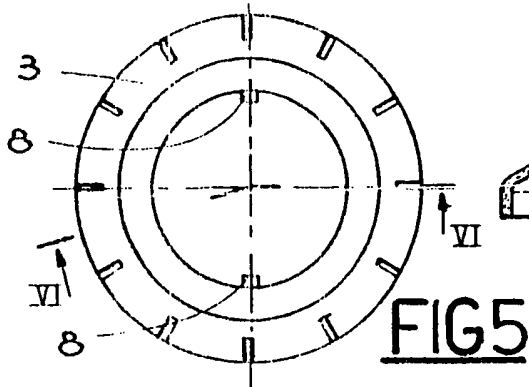
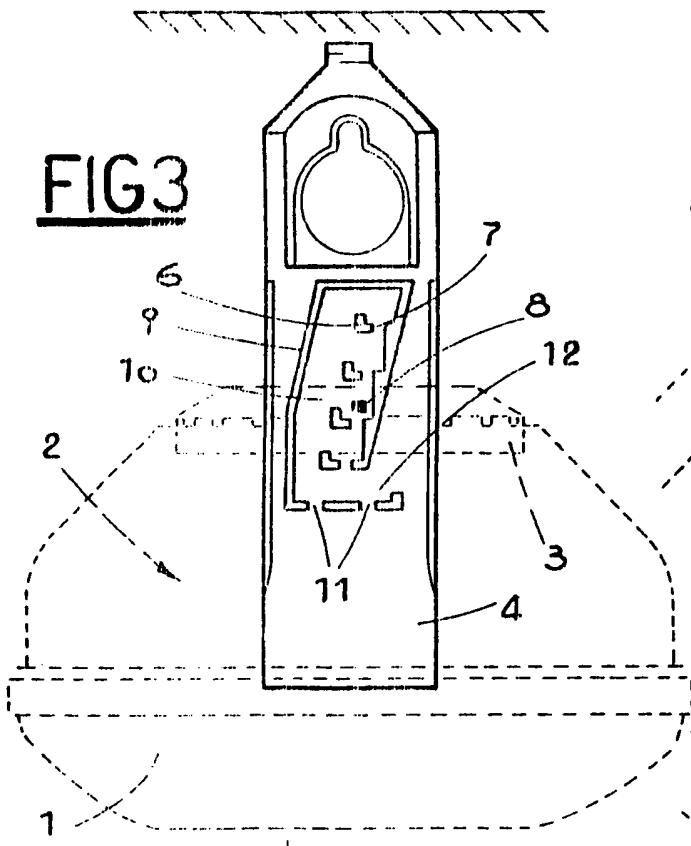


FIG5

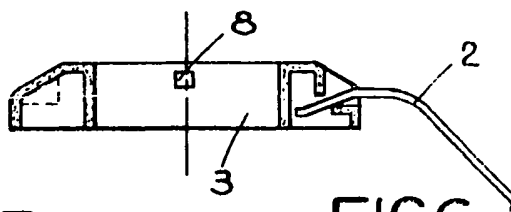


FIG6

SPECIFICATION

Manger allowing a level adjustment of the chicken feed, provided with a lower outlet

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At the present time, mangers allowing a level adjustment of the chicken feed, provided with a lower outlet consist of a suspended containing plate and of a cylindrical upright distributor inside which chicken feed coming from a horizontal tubular duct is flowing, said duct being connected to the above distributor and bearing the same. It is known that the chicken feed level in the containing plate (high level in case of chicks, low level in case of chickens) is determined by the relative distance between the cylindrical distributor and the containing plate below.

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In known mangers this relative distance can vary in turn, according to the different requirements, the containing plate being provided with metal bearing hooks introduced in holes arranged on the outer surface of the upright cylindrical distributor, at different heights. The main drawback of these known mangers is that the chicken feed level adjustment in the containing plate often requires a difficult work, as the holes on the distributor get frequently obstructed owing to the dirt and to the deposits of chicken feed, which involves a considerable loss of time by the operator.

The main object of the invention is to provide a manger allowing to obtain a very easy and quick adjustment of the chicken feed level in the containing plate.

This object is attained by a manger allowing a level adjustment of the chicken feed, provided with a lower outlet, according to the invention, of the kind comprising a suspended containing plate provided with a metal grate hung to an upright cylindrical distributor which is connected to a horizontal tubular duct suitable to transport chicken feed, characterized in that said cylindrical distributor, on its outer surface, is provided with a plurality of bearing notches disposed on different levels in diametral opposition, a ferrule integral to said metal grate to which said containing plate is fixed being also provided; said substantially cylindrical ferrule, provided with teeth capable of engaging mutually with said notches and arranged coaxially on said distributor, outwardly to it, can reach predetermined positions at a variable height, by carrying out shiftings along the longitudinal extent of said distributor.

Advantageously and according to a further feature of the invention, said notches are substantially L-shaped and on their horizontal position they are provided with breaks suitable to allow the exhaust of deposits occasionally heaped up thereon. It is therefore possible to obtain a manger provided with a level adjustment of the chicken feed in the containing plate having a simple construction and allowing an easy and quick setting and disassembling, in view of the necessary maintenance works.

Other objects and advantages of the present invention will become evident from the description which follows of a preferred embodiment thereof given by way of example only, with reference to the

accompanying drawings, in which:

-Figure 1 is a side view of the manger as a whole;

-Figure 2 is a face view of the cylindrical distributor and of the ferrule;

70 -Figure 3 is a face view of the cylindrical distributor in which a mutual engagement position between one ferrule tooth and a notch is shown;

-Figure 4 is another view of the distributor seen in Figure 3, in which two possible positions of the ferrule and of the containing plate below are shown;

75 -Figure 5 is a plan view of the ferrule;

-Figure 6 is a sectional view of the ferrule along the line VI-VI of Figure 5.

Referring in particular to Figure 1 of the drawings, it has been indicated at 1 a suspended containing plate, which is provided, on its circular edge, with a metal grate 2 fixed, at its upper position, to a ferrule 3 made of plastic material. The ferrule 3 is coaxially mounted on an upright cylindrical distributor 4 (made of plastic material too) by which it is supported and which is connected, at its upper portion, to a tubular duct 5 transporting chicken feed. By this way, the containing plate 1 is hung to the cylindrical distributor 2 by means of the grate 2 and the ferrule 3.

Turning now to figures 2 and 3, two sets of L-shaped, bearing notches 6 are arranged on the distributor outer surface, in diametral opposition. The notches 6 of each set, which are arranged on different height levels, are aligned according to a nearly upright inclined straight line. On their horizontal portions these notches 6 are provided with breaks 7 suitable to allow the exhaust of deposits occasionally heaped up thereon.

Referring now to Figures 5 and 6 of the drawings, on its inner cylindrical surface, the ferrule 3 is provided with a pair of teeth 8, arranged in diametral opposition. The teeth 8 (see also Figures 3 and 4) engage with the notches 6 (each tooth 8 in connection with each set of notches 6), thus setting the height h of the containing plate integral to the ferrule 3 (and consequently the chicken feed height in the plate 1) to the wished position.

Formed on the cylindrical surface of the distributor 4 in proximity to the notches 6 and located around these ones, are substantially longitudinal ribs 9 suitable to form a passage-guide allowing teeth 8 to slide during the positioning of the ferrule 3 to a predetermined level.

115 These ribs 9 are also provided with horizontal breaks 11 allowing the exhaust of the heaped up deposits and with a vertical break 12 allowing the teeth 8 to disengage in case the disassembling of the ferrule 3 from the distributor 4 is required.

120 As shown in Figure 4, in order to carry out the change of the ferrule 3 from one position to another, it is necessary but a light rotation of the ferrule 3 around the distributor 4 in one direction or in the opposite one for the new engagement.

125 As various embodiments might be made of the above invention and as various changes might be made in the embodiment above set forth, it will be understood by those skilled in the art that the invention is not limited by the preferred embodiment hereabove shown and described.

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CLAIMS

1. A manger allowing a level adjustment of the chicken feed, provided with a lower outlet, of the kind comprising a suspended containing plate (1) provided with a metal grate (2) hung to an upright cylindrical distributor (4) which is connected to a horizontal tubular duct (5) suitable to transport chicken feed, characterized in that said cylindrical distributor (4), on its outer surface, is provided with a plurality of bearing notches (6) disposed on different levels in diametral opposition, a ferrule (3) integral to said metal grate (2) to which said containing plate (1) is fixed being also provided; said substantially cylindrical ferrule (3) provided with teeth (8) capable of engaging mutually with said notches (6) and arranged coaxially on said distributor (4), outwardly to it, can reach predetermined positions at a variable height, by carrying out shiftings along the longitudinal extent of said distributor (4).
2. A manger as claimed in claim 1, in which said plurality of bearing notches (6) consists of two sets of corresponding notches (6), in diametral opposition on the outer surface of said cylindrical distributor (4), the notches (6) of each set being aligned according to a nearly upright inclined straight line, said teeth (8) of the ferrule (3) being arranged in diametral opposition, each one corresponding to each set of notches (6).
3. A manger as claimed in claims 1 and 2, in which ribs (9) are provided on the outer surface of said cylindrical distributor (4), in proximity to the notches (6), said substantially longitudinal ribs being inclined according to said inclined straight line and being suitable to form a passage-guide (10) allowing teeth (8) to slide during the positioning of the ferrule (3) to a predetermined level.
4. A manger as claimed in claim 1 or in anyone of claims 2 and 3, in which said notches (6) are substantially L-shaped and are provided on their horizontal portion, with breaks (7) suitable to allow the exhaust of deposits occasionally heaped up thereon.
5. A manger as claimed in claim 1, in which said cylindrical distributor (4) and said ferrule (3) are made of moulded plastic material.
6. A manger allowing a level adjustment of the chicken feed, provided with a lower outlet, substantially as hereinbefore described with reference to the accompanying drawings.